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Are Open Education and Flexible Forms of Learning a Civilisation Requirement or a Technological Obligation?¹

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Abstract

The paper discusses a new model of social learning that makes use of open educational resources and flexible forms of learning. It presents the evolution of the process of learning from the Cartesian model, through constructivist, cognitivist and connectivist theories. Open education, being developed in many countries of the world, including South Korea and Poland, is becoming a civilisation requirement, a response to the requirements of dynamically evolving labour market.

Keywords: *open education, open educational resources, flexible forms of learning, web 2.0 technology, social learning, virtual community*

Introduction

We are entering the world where constantly updated knowledge and skills in the area of widely understood competences, including practical skills, are required from us. It results from the fact that the methods and forms of learning used to date have to be changed in order to effectively and in a modern manner educate people living in this century. The role of auto-education (self-education, self-im-

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provement) and digital media as well as indirect communications is increasing, which contributes to preparing and developing open education, flexible learning and open educational resources. Let us characterise these terms and discuss their meaning in the contemporary world to answer the title question.

Open Education, Flexible Learning and Open Educational Resources

Open education is an idea for the way in which people can produce, share and construct their knowledge. Enthusiasts of open learning believe that each individual should have access to high-quality educational resources, bibliographical sources and barriers to accomplish this objective should be eliminated. The following can be acknowledged as barriers: specific manufacturing (editing and publishing) costs of such resources, the existence of outdated resources, and also legal standards that hinder cooperation of learners with teachers. Cooperating and making available are becoming the most characteristic qualities of open education because education is making knowledge available, exchanging information with others, which can cause constructing new knowledge, gaining functional skills, ideas and understanding the evolving world.

A synonym of open education is flexible learning, containing: the so-called blended learning, e-learning, open and distance learning (cf., S. Juszczuk, 2002; UNESCO, 2002), personalised learning and web-based learning. Such types of learning play an important role in expanding educational opportunities of people from different parts of the world. Directly, they can broaden access to higher-level education, enhancing the effectiveness of learning by working and learning in a social group.

Access to higher-level education is becoming a necessary element in the economic development and in the improvement of quality of life in all countries. Therefore, we are attempting to solve this problem in different countries of the world through global growth in the demand for access to education (J.S. Daniel, 1996).

We owe a lot to the evolution and spread of the Internet, which has become a global “platform” that has extensive and diversified educational resources and that broadens access to different types of information sources, containing formal and informal educational resources, making it possible to use them by those interested. This evolution of the Internet was called Web 2.0 and blurred the line between content manufacturers and consumers and shifted users’ attention from access

to information to access to other persons (i.e., free joining communities of new users – connectivist theories describe these processes). New types of online sources, such as: social spots in the network, blogs, wiki and virtual communities shifted users' attention from to date individual interests to virtual meetings, discussions, sharing ideas and cooperation in an innovative manner – universities worldwide changed in this manner, transformed from education centres into meeting places, places for discourse and reflection. Web 2.0 has become a new type of medium that allows for social participation and that enables realisation of different types of learning, broadening also traditional education. The use of digital technologies in education develops social aspects of learning, and also enhances them, particularly in the education of teenagers that inhabit rural areas or cities with traditional heavy industry and/or districts where such industry dominated until quite recently.

Such a dynamic increase in access to open educational resources began in 2001, when William and Flora Hewlett (D. Atkins, J. Brown, A. Hammond, 2007) and Andrew W. Mellon Foundations together introduced the MIT's OpenCourseWare (OCW) initiative that nowadays provides students and higher-education institution graduates with access to educational resources in different fields of knowledge and more than 2000 courses. The initiative has inspired hundreds of colleges and universities in the USA, and also abroad, to join this initiative and to incorporate their own educational resources into shared knowledge bases (M.S. Marshall, C.M. Casserly, 2006).

Open educational resources are learning resources that can be modified and improved because their authors can make them available to others. Individuals and/or organisations that make open educational resources available, containing such resources as: slides, syllabuses, images, timetables, videos, maps, spreadsheets and even entire textbooks, circumvent copyright related to their editing, which enables free access to these resources, their repeated use, and also translation and modifications (D. Atkins, J. Brown, A. Hammond, 2007). David Wiley presented rules for making use of resources (information) used in open education (<http://opencontent.org./definition>), among which he recognised the following:

- retain: create, store, control copies;
- reuse: use resources in different ways;
- revise: users are entitled to change information, e.g. to translate it;
- remix: combining the original with other resources;
- redistribute: sharing original resources, their copies, revised and remixed versions.

All of these activities are related to copyright. It seems that not respecting copyright is an obstacle that is difficult to overcome in many countries. None-

theless, more and more researchers and university teachers, e.g. in Poland and South Korea, support the idea of making their scientific and teaching publications available to interested users for free. If they have copyright reserved, they can do so, but in most cases these are publishing houses that have copyright reserved. In Poland, making resources available under free licences (e.g., the *Creative Commons* licence) is more and more frequent, in the public domain and/or free making resources available in the case of expiration of copyright, in particular in the case of historical sources (but the period of waiting is several dozen years). In South Korea, CC (Creative Commons) licences appeared along with the creation, in 2005, of their Korean version – CC Korea (Creative Commons Korea). Since then, by spreading licences on many websites, starting from the most popular portals, such as, e.g., Daum and Naver, CC Korea has been carrying out comprehensive activities, aimed at making cultural output available, sharing it and encouraging participation in it. In 2009, CC Korea became an independent and non-profit association that has legal personality and is currently thriving, creating and making CC licences public in accordance with the Korean law. In the situation of copyright becoming stricter, CC licences are becoming an alternative to activities connected with free dissemination of works. As a result, the interest in free licences is increasing (Korea Local Information Research& Development, 2011, pp. 34–35).

Online courses intended for a mass recipient, i.e. a number of users larger than the number found in an average class or in a year of studies of any higher education institution, can be found among educational resources (*Massive open online courses* – MOOCs) are courses available for everyone who has a computer and access to the Internet. In many countries, e.g. the USA, Canada, Germany and England, many educational organisations, colleges and universities combined their forces to disseminate high-quality resources through MOOC. In Asia, in 2015, MOOC online courses were made available in such countries as India, China, and Japan. Korean universities express relatively little interest in this type of courses. The reason for such a state of affairs is the fact that MOOC online courses were organised by the government and limited primarily to advertising them by the Korean Ministry of Education. Since these courses are still limited primarily to presentations, the situation places Korea on a lower position compared to the USA, which is the leader in the field of MOOC online courses (Park Ch., 2016, p. 123). However, in February 2015, the Korean Ministry of Education announced that it would start presentation of the Korean versions of online courses K-MOOC in the second half of the year. It was argued at the time that the courses would be a good opportunity for citizens to receive higher education at a good general level and that, as a result of them, the quality of classes would be improved and the compet-

itiveness of Korean universities in the international area enhanced. Therefore, by building the K-MOOC platform (<http://www.kmooc.kr>), Korea has become a part of the global trend called democratisation of education via the Internet. In 2015, ten Korean universities received support of the Ministry of Education and started MOOC online courses. Currently, these universities make 28 lectures public. In 2016, a new list was announced. Ultimately, 10 universities and 21 lectures were selected. Work is being carried out on incorporating them into the programme (S. Kim, S. Kim, 2016, pp. 97–98).

Teachers in many countries of the world imply that open educational resources reduce, in a noticeable manner, the costs of course resources both in primary schools and at higher levels of education. Creative teachers can not only use such resources in their classes, at relatively low costs, but also modify their content and improve them with other teachers' and specialists' help, making use of their content to a specified date. Such resources can be put on the Web and made available through the Open Access licence to all interested. In this manner, before such a resource becomes an official textbook, copyright of which is reserved for the author, a university and/or publishing house and/or the next, revised issue of a scientific or teaching publication, learners can make use of the constantly modified, updated resource so as to limit in this manner the schematic character and often boredom of the realisation of material from the same textbook.

In Poland, the issues of self-education (auto-education) and life-long learning were addressed at the turn of the 20th and 21st centuries, among others, by: Bogdan Suchodolski, Józef Pólturzycki and Ryszard Wroczyński, calling for combining school education, extra-school education and self-education. In Europe, numerous papers on this subject were written by, among others, Ettore Gelpi, Ravindra H. Dave, Paul Lengrand and Robert Kidd. In Korea, auto-education, as an informal method of education outside a university, since the second half of the 1960s has been associated with its most representative form, namely adult education, which was separated from children education. It was aimed to improve the effectiveness of this type of teaching and systematise it. In the 1970s, auto-education as a method of self-education in informal conditions was incorporated into the programme of formal teaching realised at universities and thus became more substantive. However, an initial attempt to incorporate auto-education into the system of traditional teaching encountered many difficulties because it was not precisely known how such an undertaking should be carried out for auto-education follows its own rules – it is addressed to adults who, unlike most ordinary students in traditional schools, are independent, free and driven by their own objectives. However, with time, based on humanistic theory, researchers developed theories concerning

auto-education that in the 1980s, based on social and cognitive theories, were supplemented with knowledge concerning planning classes in traditional schools so that the classes foster the development of self-education skills. Issues related to educational technology were also incorporated into auto-education together with the emergence of the Internet (D. Lee., Ch. Nam, S. Park, 2015, p. 529).

In 2008, the Cape Town Open Education Declaration was accepted in Poland, as a result of which the Coalition for Open Education was set up that embraces: Modern Poland Foundation, Interdisciplinary Centre for Modelling at the University of Warsaw (Creative Common Polska project), Polish Librarians' Association as well as Wikimedia Polska. Almost all universities in Poland, and also other institutions, make their open educational resources available. It is possible to find them, e.g., on the websites of the University of Warsaw (e.g., *Fizyka wobec wyzwań XXI wieku (Physics Faced with Challenges of the 21st Century)*), the John Paul II Catholic University of Lublin, the AGH University of Science and Technology in Kraków (open-AGH, mathematics and computer science e-textbooks), the Nicolaus Copernicus University in Toruń (<http://portal.umk.pl/web/otwarte-zasoby>), on the website, there are open educational videos, content-valuable e-learning courses, webinars, e.g. on copyright in distant education and on the Open Access publication model; the Educational Research Institute (base of educational tools), Collegium Civitas (Wszechnica), Biblioteka Otwartej Edukacji (*Library for Open Education*) (Centrum Cyfrowe Projekt: Polska), and the Nasz Elementarz initiative of the Ministry of National Education (A. Turowski et al., 2016). In Korea, there are two methods in which OCW-type (OpenCourseWare) repositories are implemented. The first is university OCW managed by separate universities, the other is KOCW managed by the state in the form of a consortium. However, most educational resources to open lectures at individual universities, which are made available on university OCW websites, are also published on KOCW websites. It can therefore be concluded that OCW websites are compatible with KOCW. The first university in Korea that in 2007 adopted OCW was Korea University. However, the competition around OCW between universities started in 2010, when the list of KOCW lectures was published in official information about higher-education institutions. Having OCW repositories became important and began to matter in rankings of universities carried out by the Korean media and the Ministry of Education, and also in promotional materials of individual universities. It contributed to increasing the number of lectures being made available on OCW by individual universities. According to the data of 2015, 194 institutions made their resources available on KOCW websites, including 160 universities that made 9,970 lectures and 255,378 educational resources public (E. Lee, K. Kim, 2015, pp. 67–69).

We would like to emphasise that the idea of open educational resources has been developed for a long time both in Poland and Korea. For example, digitisation was introduced to schools by the Polish government through subsequent projects, such as: *cyfrowa szkoła* (*digital school*), the aforementioned *Nasz Elementarz* (*Our Primer*), and since 2015 e-textbooks for general education, starting with the first form of primary school to the last form of secondary school and technical college (<http://epodreczniki.pl>). Under the influence of OER (Open Educational Resources) world trends, also in Korea, starting with the government KOCW repository, different projects have been prepared, which higher-education institutions can join. As a result, university OCW repositories are developing dynamically with the OCW of the best universities in the lead. Before, in 1996, for the purposes of primary and secondary education, the Korean Ministry of Education set up EDUNET, an organisation that makes systematised educational resources available for free for teachers and students in the form of OER (Open Educational Resources). On the other hand, in 2012, Korean Educational Broadcasting System (EBS)² developed the Educational Digital Resource Bank (EDRB)³ programme where it makes available videoed educational resources for teachers and students of primary and secondary schools. Open education is constantly developing in the form of OER and OCW, which can be accessed by both teachers and learners at all levels of education, starting from basic to higher education (H. Cha, T. Park, 2013, p.71).

Promoters of open education are extremely sceptical of the existing process of academic publications and operations of academic publishing houses. They suggest that anonymous reviewers be involved who make the process of reviewing more transparent so that readers can better understand the message of a paper because research being described would have to be presented in more detail. Open access to scientific publications, in the opinion of enthusiasts of open education, brings the latest research results closer not only to students, or other interested individuals from outside universities, but also to other researchers who usually have to pay a publishing house and/or library for access to published resources. Prices for these services are diversified, but, for example, wanting to browse through a few papers already involves considerable costs that are paid for from the fund of a research project and/or the fund of a scientific or academic unit. For this reason,

² EBS is a Korean system for broadcasting educational information, aimed to supplement school education, and also to support life-long learning.

³ EDRB is the system used by the EBS station, consisting in making available for free educational resources in the form of approximately five-minute videos.

supporters of *Open Access* think that nowadays it is difficult for researchers to get to know innovations in a studied discipline, read about the results of new research and verify its results, and also to compare the results with their own results, in the situation of an extremely significant increase in the number of scientific journals and monographs worldwide and paid access to them.

No opportunity of free access to the latest research results has set up a movement at numerous universities aimed to create it. There are already some institutions that use the policy of free access through grant applications, e.g. *The Public Knowledge Project*, which allowed for the development of an open publication platform called *Open Journal System*, allowing editorial teams to give opinions on and publish academic journals outside the traditional publishing system. In Poland and Korea more and more scientific journals can be found on the Web because they are published in the free-access electronic form. Numerous journals published in a compact form, like e.g. *The New Educational Review*, issued by Wydawnictwo Adam Marszałek in Poland, also have their own website (www.educationalrev.us.edu.pl) and give free access to articles published therein, not only to their authors, but to all interested researchers from all over the world.

Social Learning

The Web 2.0 technology, open education and flexible forms of learning developed social learning. Researchers understand the term “social” in different ways. For example, John Seely Brown and Richard P. Adler (2008) interpret the term “socially” as common participation with others and being together in the world. Terms that refer to attempts to construct and make something with others, to learn practical skills together with others and to interpret given answers can also be found (J.S. Brown, A. Collins, P. Duguid, 1989).

Social learning is based on the assumption that our understanding of content is socially constructed through discussions on this content as well as through fundamental interactions with others, around the problem and/or undertaken activities. Learners focus their understanding not on what they learn, but how they learn. This situation resembles diagnosing in qualitative research where the “truth” is established socially and sometimes has little in common with the objective truth (cf., S. Juszczuk, 2013). For this reason, researchers suggest that learners not pay attention to styles of education used by their teachers, or details of information transferred, but more to shaping skills and cooperating in small groups of learners. Research revealed that those learning in groups, at least once a week, were more

aware of the issues of their studies, in a more excellent manner prepared to speak in front of the class and learned better than students who worked individually (R.J. Light, 2001).

In the opinion of John S. Brown and Richard P. Adler (2008, p.18), the crux of social learning is in opposition to the traditional, Cartesian look at knowledge and learning that dominated in the last century. In the Cartesian perspective, it is assumed that knowledge is a type of matter, while teaching concerns searching for the best method for transferring this “matter” from the teacher to learners. In the traditional (Cartesian) education system learners can spend many hours learning a specific subject. In the 20th century, education concentrated mostly on supporting learners in constructing knowledge from individual pieces of information (constructivist theories are about this) as well as developing cognitive skills (cognitivist theories concern this) that learners could use in situations connected with the content being taught. Starting from the Cartesian principle “I think, therefore I am”, knowledge is what is transferred from the teacher to learner as a result of the use of different methods of teaching (in more detail: pedagogical strategies), we arrive at social learning that is included in the saying: We participate, therefore we are. Perceiving the social aspect of learning in this manner shifts our attention from the content of the subject of learning to learners’ activity connected with the process of learning and human interactions around the context of the subject of learning.

Occurrences characterised are the crux of social learning in a virtual class where the teacher’s social roles and his or her competences are particularly clearly seen. Stanisław Juszczuk and Yongdeog Kim (2015, pp. 153–164) claim that social and cultural processes taking place in a virtual class are to a large extent similar both in Korea and Poland.

Four aspects of social learning were presented years ago by Jacques Delors (1998) in a report of International Commission for Education for the 21st Century, managed by him for the purposes of the UN, among which he recognised: learn to know (get tools for understanding the surrounding world); learn to act (influence the neighbourhood, environment); learn to live together (participate, cooperate and collaborate on all planes of human activities) as well as learn to be (learn for one’s own development to be a conscious participant in the process of learning the world).

Let us analyse the last, significant aspect of social learning, which is learning to be. Increasing an area of knowledge introduces to the process of learning not only the aspect of “learning about” a specified substantive subject, but also “learning to be” a full participant in the process of getting to know knowledge in a given area and shaping practical skills (L. Toru, V.M.S. Kumar, 2008).

Conclusions

The new model of social learning, making use of open educational resources, flexible forms of learning, knowledge spread among the Internet users and their practical skills, is becoming more and more effective, available for all learners at different levels of education. It is becoming a new form of learning in numerous countries, including Korea and Poland, being not only a supplement to formal education, but also its development through life-long learning, auto-education, fosters shaping functional skills in learners required by the dynamically evolving labour market in different countries. Therefore, the social model of learning, which makes use of resources and services on the Internet, is becoming a civilisation requirement, being an indicator of contemporary education.

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